COURSE IMPLEMENTATION DATE: September 1993
COURSE REVISED IMPLEMENTATION DATE: September 2006
COURSE TO BE REVIEWED: December 2009
(Four years after UPAC final approval date) (MONTH YEAR)

OFFICIAL COURSE OUTLINE INFORMATION

Students are advised to keep course outlines in personal files for future use.
Shaded headings are subject to change at the discretion of the department and the material will vary - see course syllabus available from instructor

FACULTY/DEPARTMENT: **KINESIOLOGY AND PHYSICAL EDUCATION**

KPE 270	**KPE 290**	**4**
COURSE NAME/NUMBER	FORMER COURSE NUMBER	UCFV CREDITS

Human Physiology I
COURSE DESCRIPTIVE TITLE

CALENDAR DESCRIPTION:

This course will examine the structure and function of systems involved in the control and execution of human movement, including a detailed examination of histology, the integumentary system, the musculoskeletal system, and the integration and control systems (nervous and endocrine). Labs will focus on organ system physiology.

PREREQUISITES: **KPE 170 or Bio 111/112, and 30 university-level credits.**
NOTE**:** Effective September 2007**: KPE 170 or Bio 111/112 with a "C+" or better, and 30 university-level credits.**
COREQUISITES: **None**

SYNONYMOUS COURSE(S)
(a) Replaces: **KPE 290** *(Course #)*
(b) Cannot take: **KPE 290** *(Course #)* for further credit.

SERVICE COURSE TO: *(Department/Program)* *(Department/Program)*

TOTAL HOURS PER TERM: **75**
STRUCTURE OF HOURS:

Lectures:	**39**	Hrs
Seminar:		Hrs
Laboratory:	**36**	Hrs
Field Experience:		Hrs
Student Directed Learning:		Hrs
Other (Specify):		Hrs

TRAINING DAY-BASED INSTRUCTION
LENGTH OF COURSE:
HOURS PER DAY:

MAXIMUM ENROLLMENT: **36**
EXPECTED FREQUENCY OF COURSE OFFERINGS: **Four times annually**

WILL TRANSFER CREDIT BE REQUESTED? (lower-level courses only)	☒ Yes	☐ No
WILL TRANSFER CREDIT BE REQUESTED? (upper-level requested by department)	☐ Yes	☒ No
TRANSFER CREDIT EXISTS IN BCCAT TRANSFER GUIDE:	☒ Yes	☐ No

AUTHORIZATION SIGNATURES:

Course Designer(s): D. Harper
Chairperson: *(Curriculum Committee)*
Department Head: G. Anderson
Dean: J. Snodgrass
UPAC Approval in Principle Date:
UPAC Final Approval Date: December 14, 2005

LEARNING OBJECTIVES / GOALS / OUTCOMES / LEARNING OUTCOMES:

Upon successful completion of this course, students will have developed an understanding of:

1. Histology,
2. The integumentary system, including somatic sensation and thermoregulation,
3. The skeletal system including bone composition, function, and growth regulation,
4. The muscular system, including contraction kinetics and excitation contraction coupling,
5. The nervous system, including action potentials, impulses, and neural processing,
6. The endocrine system, including the regulation of hormone secretion.

METHODS:

Lecture	Audiovisual presentation
Computer interaction (anatomy programs)	Class participation/discussion

PRIOR LEARNING ASSESSMENT RECOGNITION (PLAR):

Credit can be awarded for this course through PLAR (Please check:) ☒ Yes ☐ No

METHODS OF OBTAINING PLAR:

Transfer credit, examinations, or portfolio assessment.

TEXTBOOKS, REFERENCES, MATERIALS:

[Textbook selection varies by instructor. An example of texts for this course might be:]

Marieb, E.N., Human Anatomy and Physiology, 6th ed.

SUPPLIES / MATERIALS:

Laboratory space is provided along with anatomical charts and models. Equipment for muscle and nerve experiments will be available. Sensory tests will also be conducted. Anatomy software is available in the computer lab.

STUDENT EVALUATION:

[An example of student evaluation for this course might be:]

Lab (4 exams)	40%
Midterm exams (2)	40%
Final Exam	20%

A+	90% +	B-	70 - 72
A	85 - 89	C+	66 - 69
A-	80 - 84	C	60 - 65
B+	77 - 79	C-	55 - 59
B	73 - 76	P	50
		NC	0 - 49

COURSE CONTENT:

[Course content varies by instructor. An example of course content might be:]

Histology

focus on muscle, nerve, and bone

Integumentary system
defensive and protective functions
cutaneous sensations
thermoregulation

Skeletal system
chemical composition of bone
properties of composite materials
growth and development of bone
remodeling of bone and calcium regulation

Muscular system
contraction kinetics
excitation contraction coupling
muscle fibre types
muscle cell energetics

Nervous system
resting membrane potentials
action potentials
impulses and impulse speed
synapses and neurotransmitters
post synaptic potentials
neural processing and organization

Endocrine system
mechanism of hormone action (steroid and non steroid)
second messenger systems and signal transduction
functions of glandular secretions
hypothalamic pituitary interactions
regulation of hormone secretions

Students will work as groups to prepare a written project on a contemporary issue relating to these organ systems. They will also make an oral presentation and/or web page.